

REMARKS/ARGUMENTS

The Official Action dated 23 February 2005 has been carefully considered, along with cited references, applicable sections of the Patent Act, Patent Rules, the Manual of Patent Examining Procedure and relevant decisional law.

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Zoiss et al. (US 5,666,715).

Applicant respectfully submits that the present invention is significantly different from that of the cited arts as can be seen from their respective structures. Applicant's invention as specified in the amended claim 1 is patentably distinguishable over these references when taken either singularly or in combination for the following reasons:

The Examiner cites Zoiss et al. as an example disclosing a method for driving an electric percussion tool including a solenoid (21), a plunger core (31) slidably received in the solenoid, a spring member (41) for returning the plunger (31), and a switch (18); the method further comprising the steps of operating the tool as described therein.

The Examiner further states that Zoiss et al. does not expressly state that the spring is made with a smaller biasing force, it is inherent that the spring of Zoiss et al. includes a smaller biasing force, which return the solenoid plunger to the plunger's preset position because such language is relative and the structure is deemed met. Further, while Zoiss et al. does not expressly state allowing the spring member a longer time to return the plunger core, it is clear that expressions such as "striking" and "pulse" imply

rapid movement and “gradual return” implies show movement. Accordingly, the claim language is inherently met.

For claims 2 and 3, the Examiner also cites Zoiss et al. as an example disclosing a method for driving an electric percussion tool, and also states that Zoiss et al. does not expressly state that the spring is made with a smaller biasing force, it is inherent that the spring of Zoiss et al. includes a smaller biasing force, which return the solenoid plunger to the plunger’s preset position because such language is relative and the structure is deemed met. Further, while Zoiss et al. does not expressly state allowing the spring member a longer time to return the plunger core, it is clear that expressions such as “striking” and “pulse” imply rapid movement and “gradual return” implies show movement. Accordingly, the claim language is inherently met.

However, as actually, in Zoiss et al., as disclosed in col. 5 lines 31-36, the solenoid return compression spring 41 is captured between an end face 32 of solenoid plunger 31 and an end cap 51. In addition, as disclosed in col. 5 lines 65-67, the tool holder return compression spring 83 is captured between a lip portion 63 of end cap 51 and a shock-absorbing cushion sleeve member 85.

Accordingly, two return compression springs 41, 83 are required to be provided between the solenoid plunger 31 and the end cap 51 of the cutting tool holder 50, such that the solenoid winding 21 is required to be made “stronger”, in order to compress both return compression springs 41, 83. As disclosed in col. 6 lines 47-50, when the current pulse terminates, the restoration energy in the compression springs 41 and 83 act to gradually return the

components in the barrel 13

Relatively, the solenoid winding 21 should be made of greater or stronger winding materials, for generating greater solenoid field or force, in order to compress both return compression springs 41, 83. The manufacturing cost for the solenoid winding 21 will thus be greatly increased. The provision and the assembling the two return compression springs 41, 83 will also greatly increase the manufacturing cost for the electric percussion tool of Zoiss et al.

By contrast, in Applicant's invention, as amended in the amended claim 1, only one and single and weaker spring member (14) is required to be provided and disposed between the plunger core (21) and the casing (13) or the solenoids (20), such that the solenoids (20) may easily overcome the spring biasing force of the spring member (14), and such that the solenoids (20) may easily compress the spring member (14) to conduct a stronger striking operation. The weaker spring member (14) then may also be used to return the plunger core (21) after the striking operation.

The cited arts fail to teach an electric percussion tool including a single and weaker spring member (14) disposed between the plunger core (21) and the casing (13) or the solenoids (20), to allow the solenoids (20) to easily overcome the spring biasing force of the spring member (14), and to allow the solenoids (20) to easily compress the spring member (14) in order to conduct a stronger striking operation. The applicant's invention is different from that of the cited arts and has improved over the cited arts.

In view of the foregoing amendments and remarks, applicant respectfully submits that the present invention is patentably

distinguishable over the cited arts and that the application is now in condition for allowance, and such action is earnestly solicited.

Courtesy and cooperation of Examiner CHUKWURAH are appreciated.

respectfully submitted,

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